In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Currently Amended) A method comprising:

~~allowing~~ providing at least a first, a second, a third, ~~and~~ a fourth, a fifth, and a sixth component of an electrical circuit, each component initially being in a separated, non-interconnected state; and

~~to assemble~~ assembling the electrical circuit via self-assembly in a non-planar arrangement of the components, at least one of the components having at least two ~~contact~~ surface contact areas that are not distinguishable from each other by another component[[s]], by allowing at least one of the two surface contact areas to fasten and electrically connect to at least one surface contact area of at least one other component in the absence of any external net force applied to any of the first, second, third, ~~or~~ fourth, fifth, or sixth components in the direction of any others of the first, second, third, ~~or~~ fourth, fifth, or sixth components[[,]] to form a self-supporting, three-dimensional electrical circuit comprising the first, second, third, fourth, fifth, and sixth components, wherein at least the first, second, and third components are intersected by a first plane and at least the fourth, fifth, and sixth components are intersected by a second plane that is not coplanar with the first plane, wherein a single plane cannot be arranged in any way so as to contact each of the first, second, third, fourth, fifth, and sixth components, ~~thereby forming~~ and wherein at least one electrical circuit is formed that traverses at least one portion of each of the first, second, third, ~~and~~ fourth, fifth and sixth components, the electrical circuit having integrated circuit connectivity.

2. (Currently Amended) A method as in claim 1, comprising allowing the first, second, third, ~~and~~ fourth, fifth, and sixth components to assemble under set conditions to form an interconnected assembly that is inseparable under the set conditions.

3. (Currently Amended) A method as in claim 1, wherein each of the first, second, third, ~~and~~ fourth, fifth, and sixth components includes a mating surface that matches a mating

surface of at least one other of the first, second, third, ~~and~~ fourth, fifth, and sixth components, the method comprising allowing each of the first, second, third, ~~and~~ fourth, fifth, and sixth components to fasten to at least one other of the first, second, third, ~~or~~ fourth, fifth, or sixth components via matching mating surfaces thereby forming the non-planar arrangement of components.

4. (Cancelled)

5. (Currently Amended) A method as in claim 1, the allowing step comprising causing the first, second, third, ~~and~~ fourth, fifth, and sixth components to undergo random contact interactions with each other until the non-planar arrangement of components is formed.

6. (Currently Amended) A method as in claim 3, the allowing step involving providing the first, second, third, ~~and~~ fourth, fifth, and sixth components in a fluid that is incompatible with the mating surfaces, and allowing the mating surfaces to mate thereby minimizing contact between the fluid and the mating surfaces.

7. (Currently Amended) A method as in claim 3, wherein each of the first, second, third, ~~and~~ fourth, fifth, and sixth components includes an electrical connector, the allowing step involving allowing the mating surfaces to mate and the electrical connectors of the respective components to be connected electrically.

8. (Currently Amended) A method as in claim 7, wherein each of the first, second, third, ~~and~~ fourth, fifth, and sixth components includes an electrical device in electrical communication with the electrical connector of the component, the allowing step involving establishing electrical communication between the electrical devices of the respective components.

9. (Original) A method as in claim 3, the allowing step comprising allowing a mating surface of the first component to contact a mating surface of the second component

reversibly under the set conditions until the first mating surface is in register with and fastens to the second mating surface irreversibly under the set conditions.

10-42. (Cancelled)

43. (New) A method as in claim 1, wherein each of the first, second, third, fourth, fifth, and sixth components comprises a diode.

44. (New) A method as in claim 1, wherein each of the first, second, third, fourth, fifth, and sixth components comprises a processor.

45. (New) A method as in claim 1, wherein each of the first, second, third, fourth, fifth, and sixth components comprises an electrical device.

46. (New) A method as in claim 1, wherein each surface contact area is constructed such that, in at least two different rotational orientations of two of the components relative to each other, around an axis passing through surface contact areas of each at which they are joined, a functionally identical electrical connection between the two components is formed.

47. (New) A method as in claim 1, wherein at least one surface contact area comprises a plurality of electrical connectors arranged in a rotationally symmetric manner.

48. (New) A method as in claim 1, wherein the electrical circuit having a porous structure, wherein at least some pores are defined between components.

49. (New) A method as in claim 48, wherein at least some pores have a shape sufficient to allow a fluid to pass therethrough.

50. (New) A method as in claim 49, further comprising passing a cooling fluid through at least some of the pores.

51. (New) A method as in claim 1, wherein each surface contact area comprises a first set of electrical connectors and a second set of electrical connectors such that any two of the first, second, third, fourth, fifth, and sixth components are joinable in a plurality of electrically indistinguishable configurations wherein, in each of the indistinguishable configurations, at least one of the first set of electrical connectors on the first component joins to at least one of the second set of electrical connectors on the second component and at least one of the second set of electrical connectors on the first component joins to at least one of the first set of electrical connectors on the second component.

52. (New) A method as in claim 51, wherein the first set of electrical connectors on the first component and the second set of electrical connectors on the second component are able to join to form a parallel circuit.

53. (New) A method as in claim 51, wherein the first set of electrical connectors on the first component and the second set of electrical connectors on the second component are able to join to form a series circuit.

54. (New) A method as in claim 1, wherein at least one surface contact area comprises a first set of electrical connectors able to form an I/O connection.

55. (New) A method as in claim 1, wherein at least one surface contact area comprises a first set of electrical connectors able to form a bus.